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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Diego Tirelli

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EXAMINER

NUTTER, NATHAN M

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,186	Applicant(s) TIRELLI ET AL.	
	Examiner Nathan M. Nutter	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-11,15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-11,15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 88 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitations of "industrial, sport or safety surfaces" is not clear as to what may be encompassed. Likewise, "sound barriers....automotive locary; pipe or hose materials; roofing materials; and geomembranes," fail to explicitly show where or to what extent the composition is a part of/ or is that product. What is meant by "surfaces," for example might cover any surface in a gym, including swimming pool sealants, pin-pong tables, fan blades, etc..

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 45-48, 58-60, 64-66, 70-78, 87 and 88 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al (US 6,476,117).

The patent to Wang et al teaches the production of a thermoplastic blend that may comprise about 1 to 80% by weight of a cryogenically ground rubber and about 20 to about 99% by weight heterophase copolymer, which at column 3 (lines 41-54) may comprise a polypropylene segment and at the paragraph bridging column 5 to column 6, an ethylene, α -olefin (propylene) and polyene. Note the paragraph bridging column 9 to column 10 for the amounts of rubber and heterophase copolymer employed. The utilities are shown at column 10 (lines 14-45), including sporting goods and shoes. Bumpers, damping applications, etc..

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45-53, 58-60, 64-78, 87 and 88 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wang et al (US 6,476,117).

The patent to Wang et al further teaches the addition of cryogenically ground rubber. Instant claims 49-53 recite particle sizes for the "vulcanized rubber in a subdivided form" that may be as large as 0.39 inch. The reference shows the use of an

EPDM segment. The manipulation of the monomeric constituents of instant claims 67-69, would clearly be within the skill of the artisan with an eye toward end-use.

Claim Rejections - 35 USC § 103

Claims 45-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 6,476,117) in combination with Ottawa et al (US 4,818,785).

The reference to Wang et al teaches the essential concept herein. The reference is silent as to the specific rubber employed as the cryogenically ground rubber or the inclusion of a second thermoplastic resin (c).

The patent to Ottawa et al shows the use of a particulate vulcanized rubber constituent that may comprise the monomers recited herein. Note column 4 (lines 33 et seq.). The elastomer is an ethylene/ α -olefin/polyene that is clearly within the scope of the claimed rubber. Note column 4 (lines 8-57). The particulates are clearly within the size range recited herein. Note column 9 (lines 40-58). The thermoplastic polypropylene resin is shown at column 10 (lines 37-42). The reference further shows the use of conventional processing aids for thermoplastic elastomer compositions, including the use of an α -olefin polymer (c), different from polymer (b). Note column 6 (lines 12-22). The use of a coupling agent is shown at column 6 (lines 30-63) and column 7 (line 57) to column 8 (line 16). A radical peroxide initiator is shown at column 8 (lines 17-49).

The employment of conventional thermoplastic elastomer compounding additives, as taught by Ottawa et al in the composition, in view of their art-recognized uses, would be a prima facie obvious modification to an artisan having an ordinary skill in the art.

Response to Arguments

Applicant's arguments filed 6 April 2009 have been fully considered but they are not persuasive.

With regard to the rejection of claim 88 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, applicants contend, without stating a citation, "(t)he specification notes that "[t]he thermoplastic material according to the present invention may be formed into different kinds of manufactured products," without providing sufficient information necessary to know what is "manufactured," and concludes "(c)laim 88 is set forth with reasonable clarity and particularly (sic, particularity?) such that one of ordinary skill in the art would readily understand what is meant by the products in claim 88." This is not deemed to be so, especially since the recitation may have unobvious meanings, such as a sport surface could be a grass ball field, a ball bat, a ball, a ball glove. The terms are so broad as to be meaningless to define the metes and bounds of what may be included. The Examiner hereby requires applicants to either provide a dictionary citation to the word "locary" or remove it from the claims. The Examiner has scanned several dictionaries without success.

With regard to the rejection of claims 45-48, 58-60, 64-66, 70-78, 87 and 88 under 35 U.S.C. 102(e) as being anticipated by Wang et al (US 6,476,117), the instant claims do not exclude the concept of Wang et al at column 2 (lines 24-29) since the term "multiblock" is deemed to embrace a diblock polymer. Further, the claims are drawn to a product, *per se*. As such, manner of production does not provide weight in

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the patentability of the claims since the products are deemed to be identical. The claims are drawn to a composition and a product, thereof. Even in a process-by-process claim, the steps of the process are not deemed to be claim limitations. **Smithkline Beecham Corp. v. Apotex Corp.**, 439 F.3d 1312 (Fed. Cir. 2006). The subject matter limitations of the instant claims are met by the teachings of the reference. As regards additives, picking one over the other or for use with one another from a finite listing is not a "pick and choose" but rather based upon decisions concerning the end-product, and perhaps, financial concerns. If the skilled artisan wanted a white end-product, he would consider using a white colorant. Likewise, if a flexible, pliant molded article is being made (e.g. baby doll heads), the skilled artisan would know to pick a plasticizer. The skilled artisan knows the benefits of these additives, when and when not to use them, and the various costs/benefits associated. As such, a skilled artisan desirous of an impact modified product, with improved impact strength, would know to use the ground rubber. Applicants argue the reference "is silent as to whether the ground rubber is vulcanized and in subdivided form." Since the reference is not specific, the term would be deemed to include both vulcanized and non-vulcanized rubbers. The argument of not in "subdivided form" is without merit. The component is disclosed as "ground," the past participle of "grind," as in the common meaning, "to reduce to powder, or crush into particulate form."

With regard to the rejection of claims 45-53, 58-60, 64-78, 87 and 88 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious

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over Wang et al (US 6,476,117), the choice of a ground rubber to include in a thermoplastic matrix would be a clear variable to employ to a skilled artisan desirous of impact resistance and performance. The particles employed herein, as recited only in claims 49-53 have sizes of 0.2 mm to 10 mm (up to 0.39 inches). This size range recited would be easily envisaged for a cryogenically ground rubber. Note the reference to Gonzalez (US 6,031,009) which teaches, as evidence, that cryogenically ground rubber will have particle sizes from 0.1 mm to 1.5 mm, clearly within the range recited herein. The passage goes on to teach why one would choose the cryogenically ground rubber "for economic reasons." The particle size range, which is easily envisaged, the use of an EPDM segment and monomer manipulation with an eye to end-use (hard monomers vs. soft monomers, hydrophilic vs. hydrophobic, etc.) are all deemed to be within the teachings of the reference.

With regard to the rejection of claims 45-88 under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 6,476,117) in combination with Ottawa et al (US 4,818,785), the reference to Ottawa et al shows the rubber particles. The reference to Wang et al employ rubber particles. Source of the rubber particles is not deemed to present any criticality, nor has any been attached thereto. The fact that it "can be separated and dried from an aqueous medium" presents the particles as distinct. The employment of the rubber particle of the Ottawa et al reference in the composition of Wang et al, for its known use, impact resistance, is shown by the reference throughout the disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nathan M. Nutter/
Primary Examiner, Art Unit 1796

nmn

20 May 2009